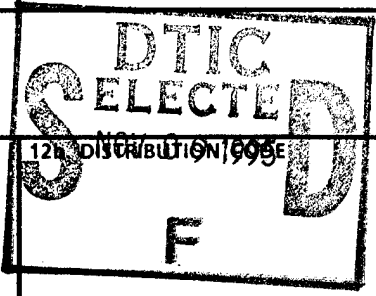


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CENTERS OF GRAVITY IN OOTW: A USEFUL TOOL OR JUST A BLACK HOLE?

A Monograph
By
Major Lou L. Marich
Corps of Engineers



School of Advanced Military Studies
United States Army Command and General Staff College
Fort Leavenworth, Kansas

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ABSTRACT

CENTERS OF GRAVITY IN OOTW: A USEFUL TOOL OR JUST A BLACK HOLE? by Major Lou L. Marich, U.S. Army, 47 pages

Current U.S. military doctrine identifies the "center of gravity" (COG) as one of the key elements in theater and operational design planning. Since Karl von Clausewitz formalized the COG concept in *On War*, military planners have used it as a focal point.

This monograph examines the evolution of the COG concept and its utility in contemporary Operations Other Than War (OOTW) planning. COG theory, sources and instruments of national power, and their relationship to OOTW, lay the foundation for defining the COG's relationship to national power. Three OOTW historical case studies follow: Lebanon, 1958; Dominican Republic, 1965; and Haiti, 1994; They provide lessons on successful application of the centers of gravity. Matrices are developed to visually relate the centers, sources, and instruments of national power.

The monograph concludes that while the "centers of gravity" are not an OOTW panacea, they are a useful planning tool. Understanding this concept enables planners to examine the levels of war associated with the instruments of national power, and develop options for a successful campaign. In particular, by developing a COG matrix, planners can focus national resources to attack the opponent's COG, while protecting their own COG and anticipating the resulting operational branches and sequels.

DEDICATION

To LTC Cowdrey, USMC,
Seminar Two classmates,
friends, and especially my family

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I. INTRODUCTION

...nations now use operations other than war—such as peacekeeping, peace enforcement, supervision cease-fires, assisting in the maintenance of law and order, protecting the delivery of humanitarian assistance, guaranteeing rights of passage and enforcement of sanctions—to compel adversaries to do their will.¹

The U.S. Army's focus has always been "to fight and win our nation's wars."² The recent changes in the geopolitical environment, precipitated by the collapse of the Soviet Union and its power bloc, has forced the U.S. Army to look at how it deals with both war and Operations Other Than War (OOTW). To deal with this change the U.S. Army rewrote its keystone doctrinal manual formalizing OOTW doctrine for the first time in the June 1993 version of *FM 100-5: Operations*.

Two major changes in the new *FM 100-5* are the addition of versatility as a tenet of Army operations and a new chapter 13 devoted to OOTW. Chapter 13 states that OOTW "include, but are not limited to" noncombatant operations, arms control, support to domestic civil authorities, humanitarian assistance and disaster relief, security assistance, nation assistance, support to counterdrug operations, combating terrorism, peacekeeping operations, peace enforcement, show of force, support for insurgencies and counterinsurgencies,

and attacks and raids.³ The U.S. Army added versatility as a tenet of operations to emphasize the need for units to be "...multifunctional, in order to operate across the full range of military operations, and to perform at the tactical, operational, and strategic levels."⁴

These changes brought with them a continuing professional debate concerning the validity of the Army's existing tenets, principles, and methods for planning and executing operations and campaigns. One of the fundamentals of successful campaign planning is the concept of "theater and operational design."⁵ The four concepts of operational design include: center of gravity, lines of operation, decisive points, and culminating point. Of the four concepts, the "center (centers) of gravity" is easily the most hotly debated.

FM 100-5 defines the center of gravity as "the hub of all power and movement upon which everything depends," or "the enemy's main source of power."⁶ Some traditional examples of the center of gravity are: the mass of the enemy's army, his leadership and command structure, capital, vital industries, and national will. The center of gravity is an analytical tool; a tool which may be difficult to find and apply in war. The difficulty increases in OOTW where there may be no enemy. These difficulties of application have caused heated discussion concerning the concept of the centers of gravity in OOTW planning.

This monograph examines the evolution of the centers of gravity concept and its utility in contemporary OOTW planning. This is accomplished by asking three questions: 1) does the center of gravity exist in OOTW? 2) can it be identified? 3) is it a useful tool in planning OOTW? To answer these questions, an analysis of Clausewitz's theoretical writings explores the "center of gravity" concept. Two additional theorists continue the examination of the center of gravity concept. These two theorists are Guilio Douhet, and Colonel (COL) John A. Warden, III, U.S. Air Force (USAF). Following this exploration of theory the monograph looks at the sources and instruments of national power.

Planners use the center of gravity as a tool to identify and attack the critical elements of national power. Their goal is to force the enemy to "do our will." As a result, it is important to understand how the sources and elements of national power relate to war and OOTW. Several historical case studies examine the "center of gravity" concept to see the extent of its use during OOTW planning and execution. Lessons learned about the concept explore its applicability to future operations. The next section synthesizes the relevance of the center of gravity concept and develops a matrix with its OOTW application. Finally, the monograph summarizes the thesis and provides conclusions on the

theoretical utility of the concept.

An examination of the center of gravity theory provides a starting point for analyzing its relevance. Accordingly, the next section of the monograph explores the evolution of this concept in the writings of three prominent theorists—Clausewitz, Douhet, and Warden.

II. THEORETICAL EVOLUTION OF THE CENTER OF GRAVITY THEORY

Carl von Clausewitz

The first task, then, in planning for war is to identify the enemy's centers of gravity, and if possible trace them back to a single one.

Carl von Clausewitz.⁷

Clausewitz's experiences as an officer in the Prussian Army in the Napoleonic wars profoundly influenced his writings. Clausewitz observed that warfare as practiced by Napoleon was revolutionary. In his view, it involved profound changes in the organization of armies as well as in the basis of national power and the emergence of the nation state.⁸ In his writings, Clausewitz proposed a new theory about the relationships between nation states and the conduct of wars. He based his observations on the principle of systematically focusing effort on a few key "centers."

Clausewitz saw war as "...merely the continuation of [a nation's] policy by other means" and defined war as "...an act of force to compel our enemy to do our will."⁹ He went on to state that "to overcome your enemy you

must match your effort against his power of resistance."¹⁰ This logic leads directly to the concept of "centers of gravity."

Clausewitz approached the concept by stating that it is important to,

...keep the dominant characteristics of both belligerents in mind. Out of these characteristics a certain center of gravity develops, the hub of all power and movement, on which everything depends. That is the point against which all our energies should be directed.¹¹

As noted, he wrote his thesis during the European transition to industrialization and the emergence of modern nationalism. At this time, centers of gravity were relatively easy to identify. These included the army, the capital city, the community of interests (alliances), and the leader of the nation. However, as the nation state developed and the industrial revolution progressed, the centers of gravity diversified. This lead to multiple centers associated with the increasingly diverse sources and instruments of modern national power. Because of the historical environment within which he formulated his thesis, Clausewitz did not address the relationship and validity of the concept toward OOTW.

Clausewitz based his theory on observations of conventional European national conflict. Military theorists since Clausewitz continued to reinforce and expand on his theory. Guilio Douhet, the 20th century

Italian theorist, was a leading proponent of the centers of gravity.

Guilio Douhet

When the psychological component is considered, it is clear that no ironclad and rigid process for identifying centers of gravity can be produced. It is possible, however, to derive general rules of thumb and guidelines.¹²

Writing a full century later, Guilio Douhet, like Clausewitz, witnessed a profound change in warfare. Douhet based his theory on the experience of the First World War (WWI) and the development of new technologies.¹³ Douhet saw the bloody stalemate of trench warfare as a failure of leadership to foresee before the conflict the impact of these new technologies. Large land armies clashed and came to a standstill during the most violent conflict the world had experienced thus far. Infantry, cavalry, and even armor had lost their power.¹⁴ In response to this stalemate, Douhet postulated two new centers of gravity, the population centers and the enemy air force. Thus, conceptual evolution of the concept of the centers of gravity continues.

His proposed method of attacking these centers of gravity was air power. By directing an air attack against these vital targets, using explosive, incendiary, and poison gas bombs, Douhet felt that he could demoralize the enemy and effect a collapse.

Douhet's theory, though partially discredited, illustrates evolution in the concept of centers driven by technology.

His assumption that a direct aerial attack on vital targets would lead to a moral and material collapse was proved invalid during World War II. Douhet saw the air arm as the preeminent functional force on the future battlefield. This total focus blinded him to the need to attack all the key sources and instruments of national power in a holistic manner. The focus of Douhet's theory was too narrow. The concept of attacking population centers of gravity using new weapon technologies represented an evolutionary development. This became an element in the application of the concept of "total war."

Since Douhet, other military theorists have taken his theory as a starting point and expanded it to integrate other military services and instruments of national power. Douhet serves as a bridge between Clausewitz and contemporary theorists. The most prominent of these latter is COL John Warden, USAF, current Commandant, U.S. Air Force Air Command and Staff College.

Colonel John A. Warden III, U.S. Air Force

Two very different conceptions of centers of gravity exist. One approach identifies centers of gravity solely within the enemy's armed force. ...The second approach admits that the enemy's

armed force is the most tangible center of gravity and the easiest to identify, but that other possible centers of gravity exist which contribute to the ability of this force to pursue the war.¹⁵

COL Warden applied the works of Clausewitz and Douhet to the contemporary international scene. He used modern analytical methods to update, refine, and integrate the centers of gravity into a nation's sources and instruments of national power. He saw that the power to destroy did not equal the power to control. His evolutionary application of the concept identifies the enemy as a system and develops it into a basic five ring model.¹⁶ This model is a blending of the sources and elements of national power, and consists of national leadership at its core, followed by organic essentials, infrastructure, population, and fielded military (Figure 1). It is a model at the macro level and, to Warden, it describes centers of gravity for a strategic entity.¹⁷ The Five-Ring Model is of particular importance because it helps to analyze the centers of gravity in OOTW. His model also assists a planner to identify the centers of gravity for each source and instrument of an opponent's power.

Warden summarizes the concept of centers of gravity by saying that they are "...simple in concept, but difficult in execution because of the likelihood that more than one center will exist at any time and that each center will have an effect of some kind on the

others."¹⁸ Warden further recognizes that every state and every military organization has a unique set of centers of gravity—or vulnerabilities.

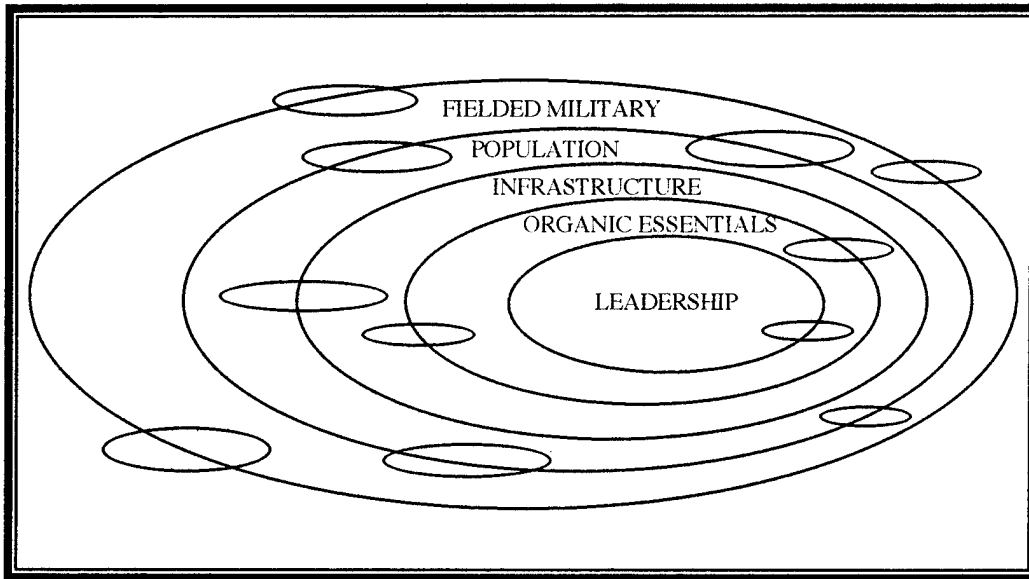


Figure 1: Warden's Five-Ring Model¹⁹

The evolution from Clausewitz to Warden is evidence of the durability and its flexibility of the center of gravity concept in new applications. What might its objectives be today? What is its relationship to contemporary sources and instruments of national power?

Its evolutionary development shows that the concept of the center of gravity is valid and worth pursuing. What then should be its focus? Where should nations concentrate their power to achieve decisive victory? The target must be the opponent's national power.

III. NATIONAL POWER

...the nonmilitary aspects of security-social, economic and political-will now assume greater importance in the strategist's appreciation of the forces at play.

Congressman Ike Skelton²⁰

For the concept of centers of gravity to be usefully applied in the contemporary international environment, one must understand the basis for a state's power and what instruments it uses to exert it. All nation states have a set of common characteristics that are at the same time unique to each state: geography, population, economy, national will, and national direction.²¹ They are the sources of national power, which, while not directly employable, provide the preconditions for generating and employing instruments of power.

Sources of National Power

A brief definition of the sources and instruments of national power provides a framework for the remainder of the discussion. An understanding of national power, its nature, its application, and its context, is essential to that goal.

Geography. Location, size, climate, topography and bounty of land provide the raw resources for a nation's generation of power. These elements of geography can provide advantages as well as

disadvantages when it comes to dealing with other nations. For example, the United States is able to enjoy its superpower status because of its geographic location, its isolation, and its abundant wealth of resources.²²

Population. Manpower has historically been a major factor in a nation's ability to influence other nations. The more populous nation state has a manpower advantage. Technology offsets this historical tradition during the industrial age. Social structure, educational levels, and cultural norms contribute to a population's ability and willingness to support its nation state.²³

Economy. A nation's economy provides the government and private citizens with a capacity to transform raw materials into finished consumer products as well as implements of war. A nation's economy is the conglomeration of its industries, natural resources, monetary and fiscal systems, available labor, markets, transportation infrastructure and interaction with global trading partners.²⁴

National Will. This is the most difficult source of power to define and one which is increasingly visible in OOTW. It is a potent and intangible source of national power—and vulnerability. National will is the sum of the predisposition of citizens to support national policies and programs, and when necessary, to endure sacrifice. National will is fickle, difficult to

define, and a potent center of gravity.²⁵

National Direction. A nation's leadership defines the national vision. It relates closely to national will. Whereas the people represent the focus of national will, the focus of national direction is the government. National direction unifies a nation—it gives meaning, purpose, and sustainment to policies, commitments, and programs. National direction must be in line with the national will if a nation state is to have unity of effort in international relations.²⁶

In the continuing evolution of the concept, the sources of national power outlined above are used to develop instruments of power. For these instruments of power to be effective, they must be tangible resources. Crafting, manipulating, altering, balancing, and ultimately, employing these instruments provide a nation with power.

Instruments of National Power

The four instruments of power are: military, economic, diplomatic, and informational.²⁷ *Joint Chiefs of Staff Publication 0-1* defines these as follows:

Diplomatic. Diplomacy is the art of government-to-government communications and relationships in the global environment. It allows a nation to participate in the international system and allows it to communicate with other nations. Ideas,

prestige, and commitment are the currencies of the field. Nations use diplomacy to respond formally and informally to its friends' and competitors' communiqués and public pronouncements. A nation's diplomatic signals will convey its intent to other nations. Diplomacy builds inter-governmental consensus and alliances, and also may attack interests contrary to national direction and will. The tools of diplomatic power include negotiations, recognition, treaties, and alliances.²⁸ However, as the concept of diplomacy evolves in the post-cold war, it must increasingly compete with mass media efforts aimed at the national will and at the national leadership.

Economic. The strength and vitality of a nation's economy provide it with a capability to influence the foreign policy behavior of other nations—and to be influenced. Economic instruments include trade barriers (tariffs, quotas, and bans), loans and loan guarantees, technology transfers, foreign aid, subsidies, monetary policies, deficits, and currency stability. Employing these instruments protects a nation's own industries and markets, improves the quality of life of its people, stabilizes the economy and governments of friends and allies, destabilizes the economies of opponents, and deters hostile economic action by other nation states.²⁹

Military. Military power is the collection of a nation's weapons and equipment, trained manpower, organizations, doctrines, industrial base and sustainment capacity. It may be a nation's strongest, most expensive and effective instrument of power.³⁰ It must remain relevant to its intended use. However, mass media strategies aimed at influencing national will may sharply curtail its capabilities. As a result, nation states usually view military power as the last resort for settling disputes.

Informational. This instrument of national power continues to grow in importance. In an age of instant communications, information allows a nation (or a trans-national entity) to effectively employ military, economic, and diplomatic power or to limit their employment by others. All nations spend a great deal of effort acquiring and using information, but no single government or private agency controls informational power. Diplomacy, intelligence gathering, public exchange of ideas, and an increasingly independent international media generate informational power. Without information, all other instruments of national power would be blind and unable to affect international relations.³¹

Figure 2 illustrates the integration of the sources and elements of national power across strategic operational and tactical levels of war.³²

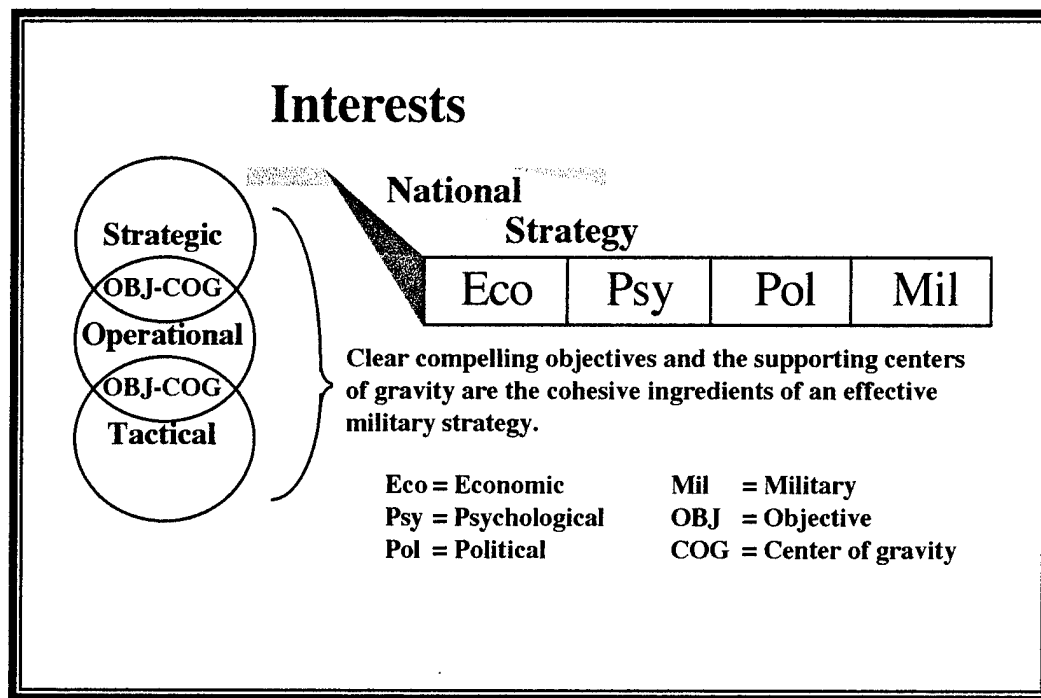


Figure 2: Instruments of National Power

An excellent warfighting example of this integration is Operation Desert Shield and Storm. The U.S. skillfully combined all instruments of national power to undo Iraq's aggression against Kuwait. Use of economic, diplomatic, and informational instruments of power initially isolated Iraq from the international community. The international community isolated Iraq by building a consensus among allied nations that resulted in economic sanctions, an economic embargo, and implementing an aggressive information campaign concerning Iraq's wanton aggression. The orchestration of all of these instruments resulted in Iraq's final defeat.

The Iraqi center of gravity was the Republican Guard. It was "...the real source of power necessary for Iraq to hold Kuwait" and was therefore "...the center of gravity for achieving the strategic goal of removing the Iraqi forces from Kuwait."³³ When all peaceful attempts to remove Iraq from Kuwait failed, the Allied coalition forces attacked with devastating results. When peaceful instruments of national power did not remove Iraq from Kuwait, their purpose changed. These same instruments enhanced the effectiveness of the military campaign against Iraq.

In conventional campaigns like the Gulf War, the instruments of national power have to shift their purpose and intensity upward as the conflict transitions from OOTW to a military campaign. Conversely, in OOTW it will be necessary for these instruments of power to shift their purpose and intensity downward; i.e., warfare to OOTW.

Nature of Operations Other Than War

Unlike conventional war, OOTW has a much broader spectrum of intensity and frequently requires a much more delicate and holistic approach. In conventional war, it is relatively easy to see how the military instrument of national power could have an over-riding impact on the resolution of a conflict between two nations. In OOTW however, the military is frequently not

the principal weapon of choice. To find an effective solution, all instruments of national power must focus on the problem. At the same time, these instruments interact with the opponents' sources and instruments of power. These mutual interaction points identify shared centers of gravity.

Instruments of national power orchestrated to attack the centers of gravity within the opponent's sources and instruments of national power, while protecting one's own, are critical to success in OOTW. These relationships will be examined next.

Three historical OOTW cases are examined with this in mind. They are: Lebanon, 1958; Dominican Republic, 1965; Haiti, 1994.

IV. LESSONS LEARNED

Most exercises to identify centers of gravity are performed after the fact. It is assumed that the winners of wars accurately identified the centers and successfully attained them, while losers either could not identify or could not attack the enemy's center of gravity.³⁴

Questions posed for each of the three cases seek to identify the lessons learned. The questions are:

- Were specific centers of gravity identified during the planning process, prior to the operation?
- If not, were they identified and used by the commander and his staff on the ground once the operation began?

- How were the centers used to attack the sources and instruments of national power?
- Were the identified centers of gravity helpful in achieving the end state?
- What centers of gravity lessons can be drawn from historical cases?

U.S. Intervention in Lebanon, 1958

In the mid 1950s, the Middle East experienced intermittent crises as the result of the collapse of European colonialism and the rise of Arab nationalism. Perceiving a Communist threat to the region, Congress approved the Eisenhower Doctrine which authorized the United States to provide economic and military assistance to requesting nations to preserve their independence. Like our current National Security strategy, the Eisenhower Doctrine stated that the stability and integrity of the Middle East were vital to U.S. national interests.³⁵

To accomplish this, the Congress authorized the President, upon request, to send U. S. forces to the region to resist an external attack by a country under the control of international communism. A generic plan for U.S. intervention in the Middle East was developed.³⁶ Lebanon made a plea to the United States to stabilize the deteriorating situation there; on July 14,

1958, the modified and implemented plan became operation "Blue Bat."³⁷

The plan for the intervention in Lebanon did not identify any specific centers of gravity that would lead to the accomplishment of the U.S. mission. However, once on the ground, General Gray, CINC American Land Forces (AMLANFOR), quickly determined the critical focus for U.S. forces in Lebanon. Today centers of gravity would define this focus. First, the U.S. forces landed unopposed and, as a result, found themselves in a "show of force" role very similar to what is today called United Nations Chapter VII Peace Enforcement.³⁸

The first center of gravity, therefore, for U.S. forces would be the maintenance of neutrality between the belligerents. General Gray recalls:

It was my intent that our troops should conduct themselves in such a restrained, alert highly professional manner that they would not inadvertently involve themselves and the Lebanese would not want to get involved with them either.³⁹

This is a radical concept for many people to accept. How can neutrality be the "hub of all power and movement on which everything depends"?⁴⁰ If we look at the broader definition of the center of gravity as defined in our doctrinal field manual, *FM 100-5: Operations*, the center of gravity "is that characteristic, capability or location from which enemy and friendly forces derive a freedom of action, physical

strength, or will to fight."⁴¹ In this light, neutrality may become a center of gravity.

Neutrality afforded the U.S. forces the freedom of action to move between the belligerents and to maintain an open dialogue, thereby allowing them to bring to bear the diplomatic, economic, and informational instruments of national power. At the same time, it indirectly sapped the Lebanese belligerents' will to decisively attack a neutral force, and reinforced the legitimacy of the Lebanese government and its military forces. Coordination with the American ambassador to Lebanon and his country team unified the diplomatic and military efforts and allowed the American forces to maintain neutrality. Again, General Gray remembers:

I developed a good understanding of the Country Team concept and was fully aware that unless otherwise specified as with Eisenhower in Europe in World War II, the ambassador is responsible for execution of U.S. policy in a foreign country.⁴²

The next priority for General Gray was the security of U.S. forces in Lebanon. This was a U.S. center of gravity just as it is today. Unnecessary casualties sap the U.S.'s national will, and indirectly lead to a lack of national direction.

An unprotected center of gravity allows a direct attack and a threat to U.S. sources and instruments of national power. This happened in 1983, when the United States Marines were back in Lebanon. The Marines did not

take adequate security precautions due to political limitations. This, combined with the loss of neutrality, led to a bombing of the Marine barracks and resulted in a large number of casualties. This one aggressive action against the U.S. forces led to a dramatic change in the U.S.'s national will, and resulted in the withdrawal of U.S. forces from Lebanon.⁴³

The last center of gravity for General Gray was the informational instrument of national power. General Gray was initially not prepared to deal with the informational requirements associated with deployed U.S. forces. This information links directly to national will, military credibility, and diplomatic effectiveness. He quickly realized the power of the press. In his reminiscences about Operation *Blue Bat*, he states that, "...a commander [must] understand the awesome power of the press. ...when the press is divided on an issue, their influence is diffused, but when they are united, their power is overwhelming."⁴⁴

The lessons of Lebanon are:

- Centers of gravity may be subtle and intangible.
- Protecting one's own centers of gravity is just as critical as exploiting the enemy's.
- A center of gravity may impact directly and indirectly on a single and/or multiple sources and instruments of national power.

Seven years after the U.S. intervention in Lebanon,

the U.S. faced a similar political situation in its own hemisphere. The expansion of communism in the Dominican Republic posed a threat to U.S. interests. This time, the U.S. would not allow a second Cuba.⁴⁵

U.S. Intervention in the Dominican Republic, 1965-66

"Power Pack," the U.S. intervention in the Dominican Republic crisis was similar to the Lebanese intervention. Like Lebanon, the Dominican intervention was a political and military operation, and provides us with centers of gravity that address all instruments of national power. President Kennedy believed that the "sweep of nationalism" was "the most potent factor in foreign affairs."⁴⁶

To deal with this, President Kennedy brought to bear multiple instruments of national power through his "Alliance for Progress."⁴⁷ He used the economic instrument by providing foreign aid, a "Marshall Plan" for Latin America.⁴⁸ This aid enabled enactment of fundamental social and economic reforms by the aid recipients, affecting the population and the national will and direction of the assisted countries.

The United States Information Agency (USIA) implemented the informational element of power to counteract Communist propaganda. USIA accomplished this by improving the host government's image at home and abroad. At the same time, the CIA gathered intelligence

and engaged in covert and paramilitary activities.⁴⁹ Finally, for Latin America, the military instrument of national power ranged from government assistance to unilateral intervention by U.S. forces.

Dominican Republic's long history of dictatorial rule ended with the 1962 elections. To the surprise of American officials, Juan Bosch, the leader of the Partido Revolucionario Dominicano (PRD), won the Dominican presidency convincingly. But in a few months Colonel Elias Vessin y Vessin, overthrew Bosch. Similarly, this tragedy repeats in Haiti [Aristide/Cedras] thirty years later.

Between 1962 and 1965, the Dominican Republic experienced political turmoil as various parties struggled for power. In 1964, the military, split into opposing factions, resulting in civil war.

With the perception in Washington that the Dominican Republic faced the threat of Communist domination, President Johnson ordered the launch of Operation *Power Pack*. Operation Plan (OPLAN) 310/2-65 existed for intervention in the Dominican Republic. It covered contingencies across the spectrum of instruments of national power, ranging from a show of force, to blockade, to the protection and evacuation of American nationals, to all-out intervention. The plan called for the use of overwhelming force to stabilize the situation and to create a climate of intimidation conducive to the

reduction or cessation of hostilities.⁵⁰ The plan did not address specific centers of gravity, because of a lack of intelligence and available information about what was going at the ground level in the Dominican Republic.⁵¹

From the beginning, President Johnson tempered the use of military force to control the perceptions about the U.S. invasion (manipulation of military and informational centers of power). This included the perceptions of the U.S. population and Latin American governments. The National Command Authority directed the invading U.S. force to land rather than parachute into the Dominican Republic because, "...the president and certain key advisers were convinced that the parachutes opening in the night skies over Santo Domingo would appear far too 'war like'—more indicative of an invasion than an intervention."⁵² Therefore, Power Pack's first center of gravity centered on the informational instrument of power. It also illustrates the military's subservience in support of other instruments of national power.

On the ground, General Bruce Palmer Jr., the commander of the U.S. forces in the Dominican Republic, determined that "...the goal of stability operations, ...was neither 'to maintain the status quo,' ...nor to support any particular faction or political group, but rather to establish a climate of order in which political, psychological, economic, sociological and other forces

can work in a peaceful environment."⁵³

One of the major problems with Power Pack was the conflict over who would determine the scope and nature of military activities at the operational and tactical levels. Our joint doctrine today states that the National Command Authority (NCA) should state the political objective and goals for the operations and that the Commander-in-Chiefs (CINCs) should determine the military activities at the operational and tactical levels.⁵⁴ This empowers the CINC and his staff to identify the centers of gravity to attack to achieve operational and strategic objectives. Our doctrines' best intentions to delineate responsibilities, are sometimes thwarted by constant information availability, and communication, allowing the NCA to insert itself and influence the actions of the CINC and his staff.⁵⁵

OPLAN 310/2-65 anticipated that the intervention may not have the psychological impact necessary to stop the fighting in the Dominican Republic and that U.S. forces would have to deploy militarily against the rebels. The plan called for U.S. troops to move into areas bordering rebel strongholds in Ciudad Nueva. The next center of gravity became a more traditional one—the Constitutionalist rebel force.

A cordon established around Ciudad Nueva accomplished the mission. It positioned U.S. troops to launch an attack against the rebels or to strangle them,

by cutting off outside support. This center of gravity, and the U.S. forces' method of attacking it, proved extremely effective. By isolating the rebels, the U.S. forces were able to practically "starve" the rebels from their sources of supply and support--political as well as material.

The final center of gravity for the U.S. forces focused on informational warfare in Santo Domingo. The rebel forces controlled the city's main radio station (until the loyalist forces captured it with U.S. support) using it for propaganda which undermined the legitimacy of U.S. action in the Dominican Republic.

The U.S. intervention in the Dominican Republic provides the following lessons concerning the centers of gravity:

- All centers of gravity are not equal. Some are subordinate to and supportive of others. These achieve a synergistic effect by combining the effects of more than one source or instrument of national power. The strategic, operational, and tactical levels of war illustrate this.

Our doctrine stresses simultaneous operations at an increased tempo.⁵⁶ Nested within this concept are tactical centers of gravity necessary to achieving operational objectives and capturing operational centers of gravity. An example of this during Power Pack is the subordination of the tactical center of gravity--

conducting a forced entry—to the strategic center of gravity—public support of the operation.

- If required, establish stability with overwhelming military force. It is also critical for international perceptions to remain positive.

- U.S. forces should commit decisively on the side of one of the belligerents, or they should withdraw, should they lose the neutrality center of gravity.

The Dominican Republic's troubles are mirrored in Haiti thirty years later. The last two lessons apply during the Haitian crisis.

U.S. Intervention in Haiti, 1994

Haiti, like many other Caribbean nations, experienced a long struggle towards democracy. The situation in Haiti in the fall of 1994 was very similar to the situation in the Dominican Republic in early 1965. After the Haitian elections, COL Raul Cedras, the junta leader, overthrew elected President Jean Bertrand Aristide who sought refuge in the U.S. The United States implemented economic sanctions and an embargo against Haiti in an attempt to force the military junta out and return Aristide to power. During this period, the junta took extremely repressive measures against the Haitian population, which, combined with the economic hardships

imposed by the embargo, caused a mass exodus of Haitians to the United States.

Throughout the Haitian crises, the U.S. government implemented all of its instruments of national power against Haiti. The economic measures highlighted above combined with diplomatic pressure and informational warfare to attack the junta. When continued pressure failed to restore the democratically elected leadership, it became apparent that a solution required the use of military force. Figure 3 shows the centers of gravity identified during the planning for Operation "Restore Democracy." 57

	USA	HAITI
STRATEGIC	US Public Support Force Protection Positive Media Impact Progress/Change UNMIH Transition	Politico-Military Leadership Cedras in Power Aristide's Return Delayed
OPERATIONAL	US Force Presence Highly Visible Expanding Rapidly Non-Aligned w/FAD'H Anarchy to Order	PAP FAD'H/Police Key Weapons Secured Organization Intact Disarm/Reorg in Abeyance

Figure 3: JTF-190 Centers of Gravity Assessment

The Haitian Centers of Gravity matrix recognizes a contemporary range of instruments of national power and identifies centers of gravity for both the United States and Haiti. By looking at this matrix, a planner could

determine three things: 1) identify which centers of gravity to attack; 2) determine which instruments of national power are best for that attack; 3) select the specific objectives, culminating points, and resources needed for success.

The informational instrument of national power applied to both the United States and Haiti, and played a major role in resolving the crisis. In the most recent Caribbean contingency, information about the humanitarian conditions in Haiti, and our purpose in correcting those conditions was essential to achieving and sustaining domestic consensus. At the same time, information directed against Haiti in the international community, as well as within its own borders, served to undermine the legitimacy of the an elected Haitian regime and hasten its final—and peaceful—collapse.

Throughout the operation, the JTF successfully managed all instruments of power: it coordinated with the Department of State to ensure that they were synchronized with economic and diplomatic instruments. An example of this is the quick release of U.S. aid and frozen Haitian funds while the U.S. forces on the ground provided the stable environment. This permitted the reopening of Haitian businesses in Port au Prince.

...diplomacy not backed by military strength is ineffectual. Leverage, as well as goodwill is required. Power and diplomacy are not alternatives. They must go together.

Former Secretary of State George Shultz⁵⁸

Secretary Shultz's quote eloquently sums up the synergistic effectiveness of the diplomatic and military instruments of power used to defeat one of the Haitian centers of gravity—Colonel Cedras. The best illustration of this is the recall of the airborne forces as they were flying to Haiti to conduct a forced entry.

On the ground in Haiti, former President Carter and his negotiation team secured Colonel Cedras' resignation and an agreement to a U.S. supervised transition of power. Cedras conceded only after learning that a U.S. invasion force was flying to Haiti from Fort Bragg, North Carolina. The NCA recalled the U.S. invading force. The following morning the Joint Task Force (JTF) 190 transitioned smoothly into a permissive entry operation with the forces based on the U.S. Navy's aircraft carriers operating off the coast of Haiti.

The lessons of an evolving concept in the Haitian intervention are:

- Centers of gravity were a valuable planning tool for OOTW.
- A synchronization matrix assists the planner with the identification and synchronization of more subtle

contemporary instruments of national power, centers of gravity, culminating points, and the resources to be used to achieve the operational and strategic objectives.

The three historical cases support the thesis that the application of the centers of gravity concept is useful for OOTW. The primary use of the military instrument of power has evolved to one that combines all to achieve the national objectives. The next section will propose an "aide memoir" (memory aide) to sharpen this evolving tool for use amid the subtleties and confusion of OOTW.

V. THE WAY AHEAD

The [OOTW] campaign planner should maintain a perspective on the indirect applications of military power. He should seek ways in which military power can contribute to political, economic and psychological aims.⁵⁹

The plans for two of these operations, Lebanon and Dominican Republic, did not use the concept of the centers of gravity. The plan for the U.S.'s intervention in Haiti did. In doing so, it produced exceptional results for an operation of this type. It also suggests a need to reexamine the centers of gravity of Lebanon and the Dominican Republic for future references.

All of these operations illustrated that the U.S.'s centers of gravity proved to be as critical as the opponents'. The Lebanon, Dominican Republic, and Haiti

interventions all demonstrate the need for a force involved in peacekeeping to remain neutral. Failure to remain neutral in the Dominican Republic shifted the U.S. support one of the warring factions.

Neutrality is not traditionally a center of gravity, because planners have a hard time visualizing how it relates to the defeat of an opponent. Neutrality, if analyzed in a broader aspect of the definition of the concept, however, becomes very much a center. It may be a major source of power and moral strength.

The three case studies discussed above involved orchestrating multiple instruments of national power to influencing the opponents' centers of gravity. They underscore the importance which planners must give to diplomatic, economic, and informational considerations as they develop their OOTW campaigns.

Centers of gravity frequently nest across the strategic, operational, and tactical levels of war, and across the sources and instruments of national power. The use of diplomatic power before the military intervention in Haiti is a good example. That exercise in diplomacy ultimately resulted in a change to the JTF operational plans and eliminated the need for violent use of the military instrument of power.

Finally, the centers of gravity concept is useful in planning OOTW. The concept is not a panacea. Centers of gravity allow the planner to focus energies and

resources toward attainable goals. However, not all centers of gravity are achievable. Planners must modify operational plans to focus on the particular instruments of power appropriate to the centers of gravity in question.

The concept of the centers of gravity is valid and applicable for OOTW as it is for war. It is a tool and a concept which enables a planner to accomplish the strategic, operational and tactical objectives, with the right instruments of national power, and with the least cost to the nation.

Theory and history lessons suggest an "aide memoire." It takes the form of a centers of gravity execution matrix. An execution matrix may be a helpful for several reasons. It allows a planner to visualize both friendly and opposing sources and instruments of national power. Properly configured, it can identify the best tools to attack the centers of gravity. Such a matrix also allows the planner to develop branches and sequels should centers of gravity not be attained or should they be identified incorrectly. The matrix is not all encompassing, but it does contain the basic elements that planners should consider when planning OOTW.

Thus, development of a center of gravity synchronization matrix has merit. It provides a focus and brings clarity to the OOTW planning process. It is applicable at all levels of war.⁶⁰ While this matrix

greatly assists the military planner, there are caveats. First, centers of gravity are a derivative of the strategic, operational or tactical aims or objectives. Second, aims at one level should contribute to achieving objectives at the next level.⁶¹ Third, it is possible to have more than one valid center of gravity. However, the more there are, the less useful the concept is likely to be. Finally, rapidly changing strategic aims or operational objectives may cause a loss of focus on the center of gravity, or "the point against which all our energies should be directed."

With this in mind, a centers of gravity chart may be constructed for the three historical cases (Figure 4).

Instruments of National Power	Diplomatic	Economic	Military	Informational
Lebanon	Government Legitimacy Elections		Government Legitimacy Self Rule	Government Legitimacy
U.S.	Neutrality		Neutrality Public Support Force Protection Positive Media Impact Force Presence	Neutrality Public Support Force Protection Positive Media Impact
Dominican Republic	Government Legitimacy		Loyalists Constitut- ionalists	
U.S.	Support to Loyalists		Public Support Force Protection	Public Support International Support
Haiti	Politico- Military Leadership Cedras in Power Return Aristide	Sanctions Embargo	Politico- Military Leadership PAF FAD'H/ Police	No Inter- national support
U.S.	Public Support Force Protection UNMIH Anarchy to Stability	Progress/ Change Anarchy to Stability	Public Support Force Protection Force Presence Positive Media Impact UNMIH	Public Support Positive Media Impact Anarchy to Stability

Figure 4: Historical Case Studies Centers of Gravity Matrix

Using this methodology, a generic matrix develops. It considers the impacts and interactions of the sources and instruments of national power for the United States

and any number of adversaries. Figure 5 is an example of this type of matrix.

	United States	Adversary
Diplomatic	Legitimacy National Interests Alliance Interests International Interests	Legitimacy National Interests Alliance Interests International Interests
Economic	Cost of Protracted Involvement	Financial Aid Assistance Foreign Dependence on Resources
Military	U.S. Public Support Force Protection Neutrality (if appropriate) Overwhelming Presence	Belligerent Forces Assistance Legitimacy
Informational	U.S. Public Support Legitimacy International Support	Support of People Legitimacy International Support

Figure 5: Generic Centers of Gravity "Aide Memoire"

When developing this matrix, a planner must understand that it represents a complex, interdependent system like the one described by Warden. Each center of gravity will have an influence on one or more sources and instruments of national power. As the planners develop a concept of operation and war game the subsequent results, a change in any of the centers of gravity will have a ripple effect throughout the system (matrix). This will force the planner to develop branches and sequels with additional matrices to be able to anticipate the unexpected.

VI. "ONLY THE FIRST STEP"⁶²

...we must also guard against becoming fascinated by the possibility of finding a magic key that allows us to avoid the requirement of defeating, in battle, the enemy forces opposing us.⁶³

Developing a campaign plan requires the use of several key concepts; the most critical of these is the identification of the centers of gravity. Changes in the political environment, with the resulting emphasis on OOTW, have brought into question the validity and usefulness of the concept. The monograph set out to validate the utility of centers of gravity in OOTW planning.

In looking at the centers of gravity, one must first understand that it is a concept—a tool to allow a planner to focus on his and the enemy's strengths and weaknesses. Theory and doctrine define the center as the hub of all power, the source of the opponents strengths. The modern nation state has multiple centers of gravity which relate directly to a nation's elements of power. To be able to effectively use the centers of gravity, planners must first understand how and where the belligerents obtain their power.

A nation state is a holistic entity—"an organism" composed of interacting entities and forces. These elements are the sources (geography, population,

economy, national will, and national direction) and instruments (diplomatic, economic, military, and informational) of national power. National sources and instruments of power are crucial in war—their forceful deliberate use overcomes the enemy. As a result, the relationship between them and the centers of gravity are much clearer and easier to identify.

OOTW, on the other hand, requires a much more subtle approach. Centers of gravity may not always be obvious—like neutrality—and they may have complex relationships to other centers. In addition, U.S. forces may have more vulnerable centers—the fickle public opinion. Planners must consider all these intricate interrelationships of the elements of power and the centers if they are to identify the correct centers of gravity.

Foremost, centers of gravity must serve the tactical, operational, and strategic objectives. The case studies discussed earlier demonstrate synergistic applications of national power. Identification of the correct centers of gravity is likely to yield success.

To assist the planner, a centers of gravity matrix is a helpful tool. It visually relates the centers and sources and instruments of national power. It provides the planner with an ability to anticipate branches and sequels as the centers change. Each unique OOTW leads to a unique matrix that address the belligerents' unique

characteristics.

Finally, the evolving centers of gravity concept is the best tool applicable to OOTW because it is a tool which enables a planner to examine the different levels of war associated with the instruments of national power, and to draw conclusions for structuring a successful campaign.

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